

Appl. No. : 10/824,798
Filed : April 15, 2004

REMARKS

The claims have been amended in line with the Examiner's suggestions for clarification. No new matter has been added. Applicant respectfully requests entry of the amendments and reconsideration of the application in view of the amendments and the following remarks.

Rejection Under 35 U.S.C. § 102

Claims 1-4, 6, 7, 9-11, 17-19, 30, 32-37, and 40 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Okase (US 5884009). Claims 1 and 30 are independent and have been amended for clarification.

Claim 1 as amended herein recites:

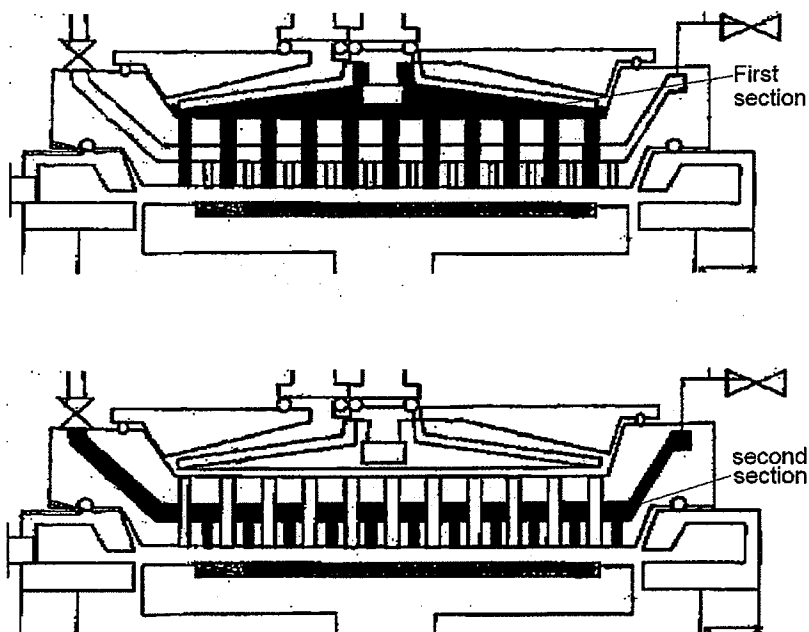
a first plate having exclusively a first flow channel for discharging a first gas through the first flow channel and the head surface toward the support; and

a second plate constituting the head surface and disposed under the first plate, said second plate having both the first flow channel and a second flow channel which is for discharging a second gas through the second flow channel and the head surface toward the support, wherein there is no gas-mixing between the first flow channel and the second flow channel,

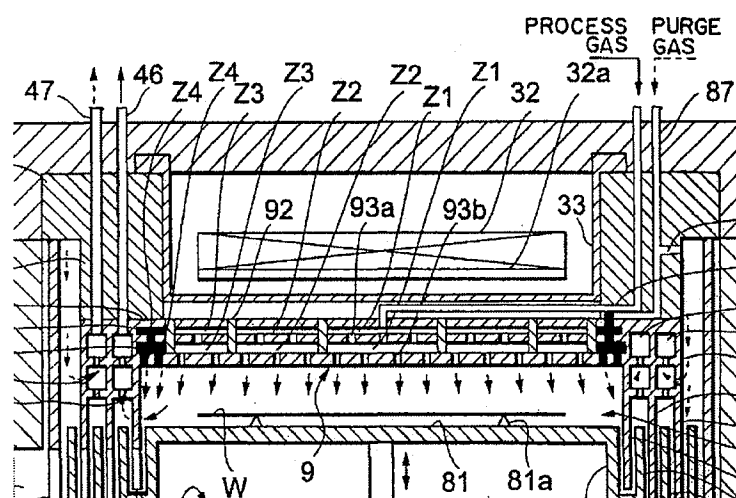
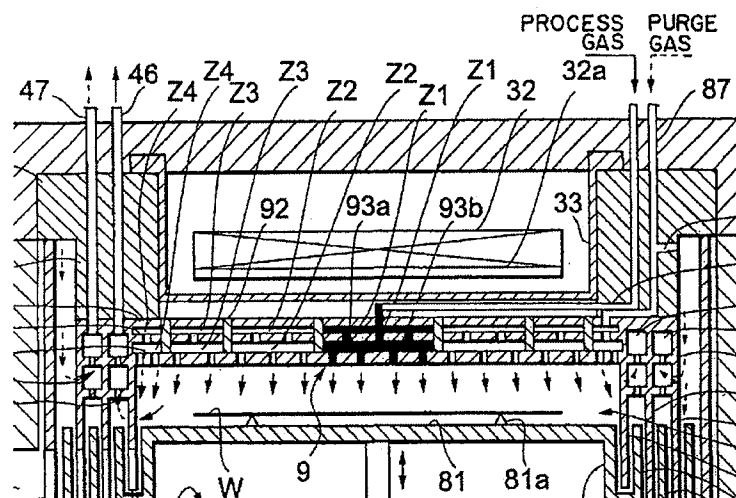
at least one of which flow channels is coupled to an exhaust system for purging therefrom a gas present in the corresponding flow channel without passing through the head surface,

said first and second plates being stratified parallel to each other in a direction perpendicular to their axial direction and being overlapped as viewed in the axial direction, said second plate being closer to the head surface than is the first plate.

An embodiment of this configuration is shown in Fig. 1, for example, and can be summarized below (the first section and the second section correspond to the first flow channel and the second flow channel, respectively).



In contrast, the device shown in Fig. 9 of Okase does not possess the above structure. The first flow channel corresponds to radial zones Z1, Z2, or Z3 for passing a process gas, and the second flow channel corresponds to radial zone Z4 for passing a purge gas. The zones are divided by the partition member 92 (col. 18, lines 54-56) and are not in gas communication with each other. However, clearly, the radial zone Z4 and the radial zone Z1 (or Z2 or Z3) are **not overlapped as viewed in the axial direction** and **not stratified parallel to the head surface (9)**, and the radial zone Z4 is **not** closer to the head surface (9) than is the radial zone Z1 (or Z2 or Z3). Further, **each plate constitutes and has all of the radial zones**.



Thus, Okase does not teach each and every element of claim 1 and could not anticipate claim 1.

Additionally, claim 4 recites: the first flow channel and the second flow channel are both respectively coupled to exhaust systems for purging a gas present in the corresponding flow channel without passing through the head surface. In Okase, only the radial zone Z4 is coupled to the exhaust system without passing through the head surface.

Claim 30 as amended herein recites:

a distribution plate;

a first plate having exclusively first bores through which a first gas passes, wherein a first section is formed between the distribution plate and the first plate, wherein the first gas is introduced into the first section and passes through the first bores; and

a second plate having second bores through which a second gas passes, wherein a second section is formed between the first plate and the second plate, wherein the second gas is introduced into the second section and passes through the second bores,

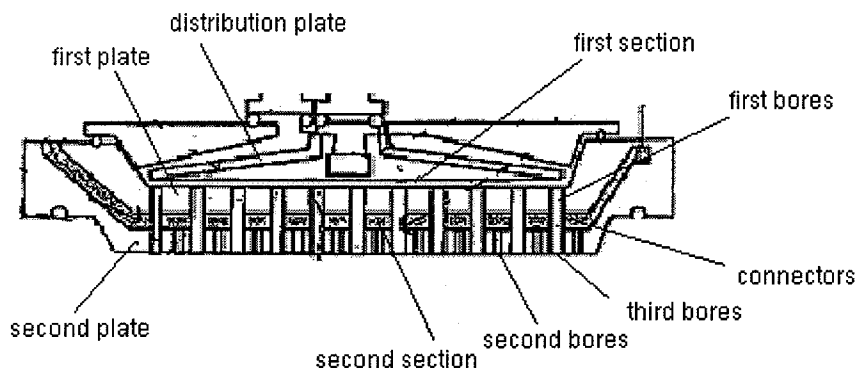
said second plate further having third bores through which the first gas passes, wherein there is no gas communication between the third bores and the second bores, but there is gas communication between the third bores and the first bores,

wherein the second plate is disposed above the support, the first plate is disposed above the second plate, and the distribution plate is disposed above the first plate,

the first plate and the second plate are overlapped as viewed in their axial direction where the second plate has both the second bores and the third bores and the first plate has the first bores only, and

at least one of the first section or the second section is coupled to an exhaust system which discharges the gas in the corresponding section without passing through the corresponding bores.

An embodiment of this configuration is shown in Fig. 1, for example, and can be summarized below.



As shown above, in Fig. 9 of Okase, the radial zone Z4 and the radial zone Z1 (or Z2 or Z3) are not overlapped as viewed in the axial direction, and each plate constitutes and has bores

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connected to all of the radial zones. Thus, Okase does not teach each and every element of claim 30 and could not anticipate claim 30.

At least for the above reasons, Okase also could not anticipate the remaining dependent claims. Applicant respectfully requests withdrawal of this rejection.

Rejection Under 35 U.S.C. § 103

Claims 5, 8, 12, 13, 20, 31, 38, and 39 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Okase in view of Hills. However, Hills is irrelevant to the above-discussed features in claim 1 or 30. Thus, not all limitations of claim 1 or 30 are taught or suggested by Okase and Hills. Accordingly, claim 1 or 30 could not be *prima facie* obvious over Okase and Hills, alone or combined. Applicant respectfully requests withdrawal of this rejection.

Rejection Under 35 U.S.C. § 103

Claims 14, 15, and 16 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Okase in view of Salimian. However, Salimian is irrelevant to the above-discussed features in claim 1 or 30. Thus, not all limitations of claim 1 or 30 are taught or suggested by Okase and Salimian. Accordingly, claim 1 or 30 could not be *prima facie* obvious over Okase and Salimian, alone or combined. Applicant respectfully requests withdrawal of this rejection.

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CONCLUSION

In light of the Applicant's amendments to the claims and the foregoing Remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: December 22, 2006

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